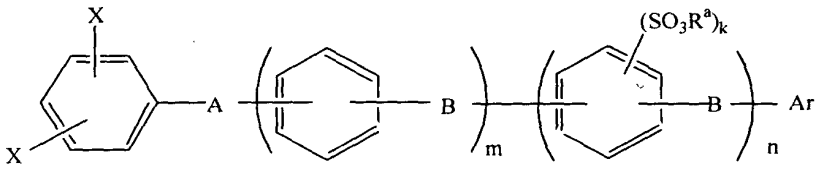
Claims:

1. An aromatic sulfonic acid ester derivative represented by the formula (1);



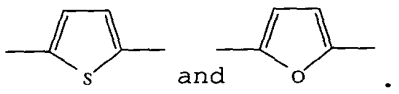
... (1)

in which X is an atom or a group selected from a halogen atom excluding fluorine, $-OSO_3CH_3$ and $-OSO_3CF_3$, A is a divalent electron attractive group, B is a divalent electron donating group or a direct bonding, R^a is a hydrocarbon group of 1 to 20 carbon atoms, Ar is an aromatic group having a substituent represented by - SO_3R^b (wherein R^b is a hydrocarbon group of 1 to 20 carbon atoms), m is an integer of 0 to 10, n is an integer of 0 to 10 and k is an integer of 1 to 4.

2. An aromatic sulfonic acid ester derivative according to claim 1 wherein the aromatic group in the aromatic group having a substituent represented by- SO_3R^b is a group selected from phenyl group, naphthyl group, anthracenyl group and phenanethyl group.

3. An aromatic sulfonic acid ester derivative according to claim 1 wherein R^a and R^b is a group of 4 to 20 carbon atoms selected from a linear hydrocarbon group, a branched hydrocarbon group, an alicyclic hydrocarbon group and a hydrocarbon group having a 5-membered hetero ring.

4. An aromatic sulfonic acid ester derivative according to claim 1 wherein the divalent electron attractive group is selected from -CO-, -CONH-, $-(CF_2)_p-$ (wherein p is an integer of 1 to 10), $-C(CF_3)_2-$, -COO-, -SO- and $-SO_2-$, and the divalent electron donating group is a group selected from -O-, -S-, -CH=CH-, -C≡C-,



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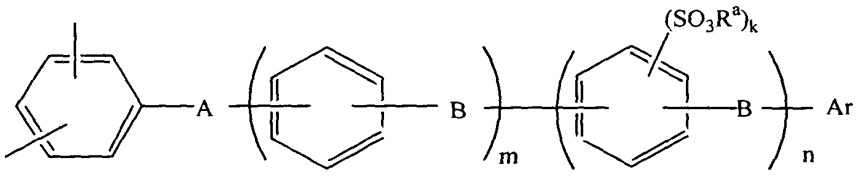
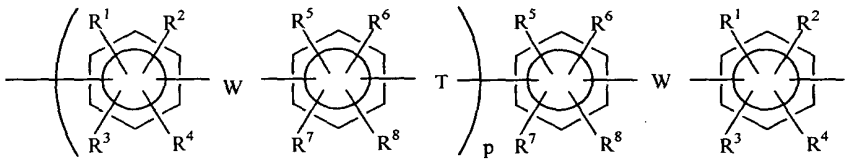
5. A polyarylene comprising repeating structural units derived from an aromatic compound, which contains at least repeating structural units represented by the formula (1');



... (1')

in which A is a divalent electron attractive group, B is a divalent electron donating group or a direct bonding, R^a is a hydrocarbon group of 1 to 20 carbon atoms, Ar is an aromatic group having a substituent represented by - SO_3R^b (wherein R^b is a hydrocarbon group of 1 to 20 carbon atoms), m is an integer of 0 to 10, n is an integer of 0 to 10 and k is an integer of 1 to 4.

6. A polyarylene according to claim 5 comprising 0.5 to 100 % by mole of repeating structural units represented by the formula (1') and 0 to 99.5 % by mole of repeating structural units represented by the following formula (A');



... (A')

in which R^1 to R^8 is identically or differently at least one atom or group selected from hydrogen, fluorine atom, alkyl group, fluorine substituted alkyl group, allyl group and aryl group, W is a divalent electron attractive group, T is a divalent organic group and p is 0 or a positive integer.

7. A process for producing a polyarylene having a sulfonic acid group which process comprises the steps of coupling polymerizing an aromatic compound containing an aromatic sulfonic acid ester derivative as claimed in claim 1 to prepare a polyarylene, and hydrolyzing the resulting polyarylene.

8. A polymer solid electrolyte comprising a polyarylene having a sulfonic acid group prepared by a process as claimed in claim 7.

9. A proton-conductive membrane for fuel cells which membrane comprises a polymer solid electrolyte as claimed in claim 8.